

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"6477207".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 16:23
L2	0	1 and ("d adj2 a")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:06
L3	19	map\$4 with (((digital adj2 analog) or (d adj2 a)) and (up adj2 conver\$5))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:07
L4	5	3 and (@ad<="20010711" or @pd="20010711")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 12:20
L5	0	tone adj2 allocat\$3 near trellis adj2 encoder	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:55
L6	0	tone adj2 allocat\$3 near2 trellis adj2 encoder	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:55
L7	0	tone adj2 allocat\$3 near2 trellis adj2 encod\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:55
L8	786	rowan.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 11:01
L9	4	8 and trellis	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 12:19

L10	2884	adaptive\$3 adj1 equalizer\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 14:35
L11	128	10 and multi adj2 carrier	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 12:20
L12	85	11 and (@ad<="20010711" or @pd="20010711")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 15:15
L13	40	12 and (copper or coaxial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 12:46
L14	3	13 and phase adj rotat\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 12:51
L15	2	"5930231".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 14:55
L16	1	15 and phase adj2 rotat\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 12:52
L17	2	"6407843".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 14:35
L18	1	17 and qam with decod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 14:35
L19	1	15 and timing with recovery	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 15:14

L20	11	(dac or (d adj2 a)) with(equalizer and (adaptive\$2 with filter))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 15:15
L21	11	(dac or (d adj2 a)) with (equalizer and (adaptive\$2 with filter))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 15:15
L22	10	21 and (@ad<="20010711" or @pd="20010711")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 16:03
L23	2	"6407843".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 16:03
L24	2	1 and digital with filter\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 16:23
S1	0	0554056a2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:53
S2	3	"0554056"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 08:42
S3	0	"ep 0554056"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 08:42
S4	2	"ep 554056"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 08:51
S5	2	"5432786".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 11:10

S6	2	"6452945".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 08:54
S7	2	"6529303".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 08:55
S8	2	"6407843".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 08:56
S9	2	"5796783".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 09:30
S10	0	Pct/us02/22339.PCT.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 09:32
S11	0	Pct/us02/022339.PCT.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 09:32
S12	0	"22339".PCT.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:45
S13	866	375/260.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:46
S14	35	S13 and parallel near (transmission or transmitter\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:51
S15	30	S14 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:51
S16	0	S15 and separate near (frequecny adj channel\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:48
S17	0	S15 and separate near (frequency adj channel\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:48

S18	3	S15 and (frequency adj channel\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:52
S19	726	375/285.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:51
S20	8	S19 and parallel near (transmission or transmitter\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:51
S21	6	S20 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:51
S22	3	S21 and (frequency adj channel\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 10:52
S23	6	"5432786".pn. "5999575".pn. "6246664".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 11:11
S24	0	(multi adj2 user) with adaptitve adj filter\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:24
S25	0	(multi adj2 user) near (adaptitve adj filter\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:24
S26	0	(multi adj2 user) near (adaptive adj filter\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:25
S27	68	(multi adj2 user) and (adaptive adj filter\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:25
S28	26	S27 and (multi adj2 user) adj detect\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:25
S29	3	S28 and @ad<="19990225"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:28

S30	2	"5,343,496".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:34
S31	1	S30 and multi near user\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/22 14:34
S32	2	"6407843".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/23 12:37
S33	3	"9945683"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/23 12:37
S34	2	"6246664".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/23 15:34
S35	2	"6452945".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/23 15:35
S36	2	"6529303".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/23 15:35
S37	2	"6407843".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/23 15:36
S38	5	(US-5999575-\$ or US-6246664-\$ or US-6452945-\$ or US-6529303-\$ or US-6407843-\$).did.	USPAT	OR	OFF	2004/11/23 16:57
S39	380	370/480.ccls.	USPAT	OR	OFF	2004/11/23 16:57
S40	7	S39 and parallel near (transmit\$4 or transceiver\$1 or transmission)	USPAT	OR	OFF	2004/11/23 17:12
S41	4	S40 and (add\$3 or accumulat\$3)	USPAT	OR	OFF	2004/11/23 17:13
S42	4	S41 and @ad<="20010711"	USPAT	OR	OFF	2004/11/23 17:13
S43	248	serdes	USPAT	OR	OFF	2004/11/23 17:08
S44	5	S43 and fr4	USPAT	OR	OFF	2004/11/23 17:08
S45	1	S44 and @ad<="20010711"	USPAT	OR	OFF	2004/11/23 17:12
S46	0	323/103.ccls.	USPAT	OR	OFF	2004/11/23 17:12
S47	435	332/103.ccls.	USPAT	OR	OFF	2004/11/23 17:12
S48	0	S47 and serdes	USPAT	OR	OFF	2004/11/23 17:12

S49	0	S48 and parallel near (transmit\$4 or transceiver\$1 or transmission)	USPAT	OR	OFF	2004/11/23 17:13
S50	13	S47 and parallel near (transmit\$4 or transceiver\$1 or transmission)	USPAT	OR	OFF	2004/11/23 17:13
S51	11	S50 and (add\$3 or accumulat\$3)	USPAT	OR	OFF	2004/11/23 17:13
S52	11	S51 and @ad<="20010711"	USPAT	OR	OFF	2004/11/23 17:17
S53	732	transmitter with (parallel near data)	USPAT	OR	OFF	2004/11/23 17:18
S54	61	S53 and ((plural or multi or multiple) adj channel\$1)	USPAT	OR	OFF	2004/11/23 17:18
S55	59	S54 and @ad<="20010711"	USPAT	OR	OFF	2004/11/23 17:19
S56	14	S55 and carrier adj frequenc\$3	USPAT	OR	OFF	2004/11/23 17:20
S57	92670	S56 and bit allocat\$3	USPAT	OR	OFF	2004/11/23 17:19
S58	0	S56 and (bit adj allocat\$3)	USPAT	OR	OFF	2004/11/23 17:20
S59	0	S56 and modulators	USPAT	OR	OFF	2004/11/23 17:20
S60	32	("4061577" "4701904" "4704715" "4953156" "5018135" "5111323" "5134609" "5278824" "5311501" "5351148" "5387927" "5430568" "5461612" "5488500" "5559561" "5564021" "5576874" "5596436" "5612805" "5680238" "5701186" "5896387" "5930231" "6078412" "6111676" "6144428" "6144786" "6201788" "6288808" "6335810" "6407843" "6452945").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2004/11/23 17:36
S61	174	(parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:04
S62	38	S61 and (different or plural or multiple) adj frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:31
S63	33	S62 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:08
S64	3	S63 and (multiple or plural) near modulator\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 09:47

S65	28	(parallel near (transmitting or transmission)) near (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 09:50
S66	0	S65 and (different or plural or multiple) adj frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 09:53
S67	0	raghauan.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 09:54
S68	17	sreen.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 09:54
S69	4	S68 and parallel near data	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:00
S70	236	370/278.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:00
S71	1	S70 and (parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:03
S72	318	370/431.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:05
S73	1	S72 and (parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:04
S74	194	370/464.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:05
S75	0	S74 and (parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:06
S76	799	370/480.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:07

S77	0	S76 and (parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:07
S78	15023	370/478-535.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:07
S79	8	S78 and (parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:31
S80	3	S79 and (different or plural or multiple) adj frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:08
S81	2	S80 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:25
S82	2855	370/532-545.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:22
S83	5	S82 and (parallel near (transmitting or transmission)) with (serial adj data)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:24
S84	2	S83 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:28
S85	12	parallel adj code adj (transmission or transmitting)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:29
S86	9	S85 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:29
S87	0	S86 and differential	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:29
S88	229	370/536.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:31

S89	15	S88 and (parallel near (transmitting or transmission))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 12:58
S90	1	S89 and (different or plural or multiple) adj frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 10:31
S91	8	"6330252".pn. "5303261".pn. "6496540".pn. "5426644".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 12:59
S92	4	(US-6496540-\$ or US-6330252-\$ or US-5426644-\$ or US-5303261-\$).did.	USPAT	OR	OFF	2004/11/24 13:14
S93	497	375/242.ccls.	USPAT	OR	OFF	2004/11/24 13:03
S94	5	S93 and (parallel near (transmitting or transmission))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:06
S95	5	S94 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:06
S96	0	S95 and bit adj2 load\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:07
S97	0	S95 and bit adj2 allocat\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:07
S98	5	S95 and encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:08
S99	473	341/59.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:06
S100	8	S99 and (parallel near (transmitting or transmission))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:32
S101	8	S100 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:08

S10 2	0	S101 and bit adj2 load\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:07
S10 3	0	S100 and bit adj2 allocat\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:07
S10 4	8	S101 and encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:08
S10 5	0	S92 and digital adj filter\$1	USPAT	OR	OFF	2004/11/24 13:15
S10 6	1	S92 and filter\$1	USPAT	OR	OFF	2004/11/24 13:15
S10 7	9	("3577142" "3594560" "3980826" "4486739" "4710922" "5301196" "5457718" "5648776" "5757807").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2004/11/24 13:15
S10 8	1191	(parallel near (transmitting or transmission))and differential	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:33
S10 9	1191	(parallel near (transmitting or transmission)) and differential	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:33
S11 0	83	S109 and digital adj filter	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:33
S11 1	77	S110 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:34
S11 2	47	S111 and digital adj2 analog	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:34
S11 3	21	S112 and map\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 14:00
S11 4	16	S113 and copper or coaxila	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:36

S11 5	325005	S113 and copper or coax\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:35
S11 6	1	S113 and (copper or coax\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 13:35
S11 7	7829	bits with (lower and higher)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 14:01
S11 8	259	S117 and carrier adj frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 14:01
S11 9	4	S118 and parallel adj (transmission or transmit\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 14:02
S12 0	2	S119 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 14:05
S12 1	3	bits with (lower adj carrier adj frequency)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 15:59
S12 2	235	mapper with filter	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:01
S12 3	174	S122 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:01
S12 4	71	S123 and digital adj2 analog	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 16:00
S12 5	16	S124 and (copper or coax\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:01
S12 6	2	S125 and parallel with (transmission of transmitting)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:00

S12 7	2459	parallel with (transmission of transmitting) and (input adj (buffer\$1 or register\$1))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:00
S12 8	368	S127 and (copper or coax\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:01
S12 9	121	S128 and mapp\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:01
S13 0	94	S129 and @ad<="20010711"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:01
S13 1	13	S130 and modulators	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:03
S13 2	0	S131 and buffer near demodulaor\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:04
S13 3	0	S131 and buffer near demodulator\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:04
S13 4	0	S131 and buffer near receiver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:04
S13 5	0	S128 and buffer near demodulator\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:04
S13 6	6	S128 and buffer near receiver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/11/24 17:04
S13 7	2	"3947769".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 08:58
S13 8	286	slicer and (threshold with (correct\$3 or adapt\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 09:05

S13 9	196	S138 and @ad<="20011031"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 09:06
S14 0	18	S139 and (running or moving) adj average	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 09:05
S14 1	439	375/317.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 09:05
S14 2	12	S141 and slicer and (threshold with (correct\$3 or adapt\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 09:06
S14 3	10	S142 and @ad<="20011031"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 09:11
S14 4	4	S143 and gain with threshold	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:24
S14 5	3	slicer with (data adj2 eye)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:25
S14 6	23	slicer and (data adj2 eye)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:25
S14 7	16	S146 and @ad<="20011031"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:39
S14 8	2	"6041084".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:42
S14 9	0	slicer with (minimum and maximum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:42
S15 0	34	slicer with (minimum and maximum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:42

S15 1	28	S150 and @ad<="20011031"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:43
S15 2	1	S151 and binary adj one	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:43
S15 3	10	S151 and binary	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:43
S15 4	5	S151 and (minimum with binary)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/05 10:44
S15 5	0	"22925591".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 10:55
S15 6	37	gaikwad.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 10:55
S15 7	10	S156 and @pd<="20010918"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 10:58
S15 8	2	(myrica adj networks).as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:04
S15 9	0	(aware adj "inc.").as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:04
S16 0	215	(aware).as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:04
S16 1	75	S160 and @pd<="20000831"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:05
S16 2	1	S161 and @pd="20000831"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:04

S16 3	0	tone adj allocation adj3 digital adj subscriber	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:09
S16 4	0	tone adj allocation with digital adj subscriber	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:09
S16 5	5	(tone adj allocation).ti.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:11
S16 6	0	(charles adj2 eldering).in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:11
S16 7	128	(eldering).in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:11
S16 8	33	S167 and digital adj subscriber	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:15
S16 9	0	S168 and tone adj allocat\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:12
S17 0	0	digital adj subscriber with tone adj allocation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:15
S17 1	4	digital adj subscriber and tone adj allocation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 11:15
S17 2	6	"5796783".pn. "6246664".pn. "5999575".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:08
S17 3	2	"5432786".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:10
S17 4	0	krestrel.as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:10

S17 5	98	kestrel.as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:16
S17 6	97	S175 and @pd<="22220910"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:11
S17 7	27	S175 and @pd<="19990910"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:11
S17 8	374062	fujitsu.as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:16
S17 9	46	S178 and @pd="19930804"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:17
S18 0	0	S179 and "4056"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/18 12:17
S18 1	0	"09965242".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/21 18:36
S18 2	3	"03007564"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/21 18:37
S18 3	9	myrica.as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/21 18:37
S18 4	0	tone near2 allocat\$3 near2 modulators	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:54
S18 5	0	tone near2 allocat\$3 same modulators	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:54
S18 6	458	tone near2 allocat\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:54

S18 7	10	S186 and (plural\$3 or multiple) adj1 modulator\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:55
S18 8	4	S187 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:59
S18 9	2	"6160820".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:59
S19 0	0	S189 and modulator\$1.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/23 14:59
S19 1	2	(US-20020001354-\$).did. or (US-6556635-\$).did.	US-PGPUB; USPAT	OR	OFF	2005/10/29 13:45
S19 2	13	"5432786".pn. "5999574".pn. "6246664".pn. "5796783".pn. "6160820".pn. "6292559".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 13:47
S19 3	2	"5999575".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 13:51
S19 4	6	"0554126"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 13:52
S19 5	35	"0051303"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 13:55
S19 6	216	aware.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 15:11

S19 7	1	S196 and tone adj allocation	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 13:55
S19 8	2	"5796783".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 15:12
S19 9	0	S198 and encod	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/29 15:12
S20 0	6	(US-6292559-\$ or US-6246664-\$ or US-6160820-\$ or US-5796783-\$ or US-5432786-\$ or US-5999575-\$).did.	USPAT	OR	OFF	2005/10/29 15:16
S20 1	0	S200 and encod\$3	USPAT	OR	OFF	2005/10/29 15:18
S20 2	0	tone adj2 allocat\$3 near2 (mapp\$3 and encod\$3)	USPAT	OR	OFF	2005/10/29 15:19
S20 3	0	tone adj2 allocat\$3 near2 (mapp\$3 and encod\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 15:19
S20 4	0	tone near2 allocat\$3 near2 (mapp\$3 and encod\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 15:19
S20 5	2	tone near2 allocat\$3 with (mapp\$3 and encod\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 15:21
S20 6	16	multi adj2 carrier\$1 with (mapp\$3 and encod\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:33
S20 7	9	S206 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:33
S20 8	0	S207 and trellis	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 15:35

S20 9	786	rowan.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:29
S21 0	2	mapp\$3 with ((d adj2 a) and (up adj2 conver\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:32
S21 1	864	mapp\$3 with ((d adj2 a) and (up adj2 conver\$6) or mix\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:32
S21 2	577	S211 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:32
S21 3	9	S207 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:32
S21 4	577	S211 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:06
S21 5	0	S214 and multi adj2 carrier\$1 with (mapp\$3 and encod\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:33
S21 6	0	S214 and ((multi adj2 carrier\$1) or (tone adj2 allocat\$3)) with (mapp\$3 and encod\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:41
S21 7	3	S214 and ((multi adj2 carrier\$1) or (tone adj2 allocat\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:34
S21 8	340791	S214 and copper or coaxial	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 16:41
S21 9	49	S214 and (copper or coaxial)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:02
S22 0	2	qam near2 constellation\$1 near2 bit near2 load\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:05

S22 1	144	modulator\$1 with different adj1 carrier adj1 frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:14
S22 2	121	S221 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:18
S22 3	18	S222 and qam	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:18
S22 4	12	("4947408" "4961160" "5247515" "5299192" "5307157" "5587939" "5640424" "5838268" "5872480" "5881107" "6035000" "6144711").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/10/29 17:10
S22 5	1106	375/260.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:14
S22 6	3	S225 and modulator\$1 with different adj1 carrier adj1 frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:17
S22 7	1	375/279.ccls. and modulator\$1 with different adj1 carrier adj1 frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:18
S22 8	27	"375"/\$.ccls. and modulator\$1 with different adj1 carrier adj1 frequenc\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 17:18
S22 9	20	S228 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:49
S23 0	3	S229 and qam	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:13
S23 1	2	"6477207".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:14
S23 2	0	S231 and encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:14

S23 3	0	S231 and cod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:47
S23 4	0	fr4 adj copper adj trace near2 differential adj1 output adj1 driver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:47
S23 5	1	fr4 adj copper adj trace and differential adj1 output adj1 driver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:48
S23 6	1	copper adj trace and differential adj1 output adj1 driver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:49
S23 7	1	transceiver adj1 chip and differential adj1 output adj1 driver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:49
S23 8	4	transceiver adj1 (chip or circuit\$1) and differential adj1 output adj1 driver	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:49
S23 9	3	S238 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:58
S24 0	612	bit adj1 allocation and data adj1 encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:54
S24 1	1	S240 and symbol adj1 mapper	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:54
S24 2	1	375/261.ccls. and bit adj1 allocation and data adj1 encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:54
S24 3	1	375/261.ccls. and bit adj1 allocat\$3 and data adj1 encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:55
S24 4	2	375/265.ccls. and bit adj1 allocat\$3 and data adj1 encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:55

S24 5	3333	jain.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:55
S24 6	5	S245 and bit adj1 allocat\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:57
S24 7	0	data adj1 encod\$3 near trellis adj1 encod\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:58
S24 8	34	trellis adj1 encod\$3 near2 qam	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:58
S24 9	23	S248 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 19:07
S25 0	1	S249 and multi adj2 carrier\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 18:59
S25 1	13	("4061577" "4701904" "4953156" "5351148" "5387927" "5430568" "5559561" "5576874" "5596436" "5680238" "5930231" "6078412" "6234427").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2005/10/29 19:04
S25 2	1	down adj2 (conversion or convert\$3) near2 (equaliz\$3 and decod\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2005/10/29 19:07
S25 3	1469	down adj2 (conversion or convert\$3) and (equaliz\$3 and decod\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2005/10/29 19:07
S25 4	23	S249 and (@ad<="20010711" or @pd<="20010711")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 19:12
S25 5	12	S254 and (copper or coaxial or "wire")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 19:13
S25 6	2	"6292559".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 19:20

S25 7	1	S256 and isi	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/29 19:20
S25 8	2	"6477207".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/30 18:29
S25 9	1	S258 and down adj2 conversion	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/10/31 11:01
S26 0	2	"6477207".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:18
S26 1	4658	S260 and isi or inter adj2 symbol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:19
S26 2	0	S260 and (isi or inter adj2 symbol)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:21
S26 3	651107	chip	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:21
S26 4	0	S260 and (tranceiver or chip)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:23
S26 5	0	(tranceiver adj2 chip) near2 (copper or trace)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:23

S26 6	1	S260 and (transceiver or chip)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:24
S26 7	736317	(transceiver or chip)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:25
S26 8	857	(transceiver adj2 chip)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:25
S26 9	2414	map\$4 with constellation	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 07:58
S27 0	1266	S269 and (@ad<="20010711" or @pd="20010711")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:08
S27 1	1014	S270 and encod\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 08:00
S27 2	566	S271 and qam	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 08:00
S27 3	152	S272 and (copper or coaxial)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 08:00

S27 4	14	S273 and (plural\$3 with modulator\$1)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/10/31 10:04
----------	----	---	---	----	-----	------------------